

RECLAMATION SURETY ESTIMATE

Gemstone Mining, Inc.

Red Beryl Mine

M/001/045

Prepared by Utah State Division of Oil, Gas & Mining

last revision

01/23/02

filename M001-045

Beaver County

2 acres of reclamation costs assigned to removal of access road and office building & pad.
A portion of the original surety is held for revegetation success on 15.85 acres.

Note: actual unit costs may vary according to site conditions last unit cost update 2-Aug-00

-Amount of disturbed area which will receive reclamation treatments = 17.85 acres

-Estimated total disturbed area for this mine = 17.85 acres

Activity	Quantity	Units	\$/unit	\$	Note
Safety gates, signs, etc. (mtls & installation)	0	sum	200	0	(1)
Sidecast mtl replacement on steep roads- trackhoe	3212	LF	1.09	3501	(11)
Seedbed Preparation - ripping - dozer	15.85	acre	234	3709	
Composted manure (10 ton/acre)	17.85	acre	300	5355	(00)
Broadcast seeding	17.85	acre	225	4016	(00)
Equipment mobilization	2	equip	1000	2000	(00)
Reclamation Supervision	3	days	386	1158	(15)
		Subtotal		19739	
10% Contingency				1974	
		Subtotal		21713	
Escalate for 5 years at 3.12% per yr				3605	
		Total		25318	
Rounded surety amount in yr 2006-S				25300	
Average cost per disturbed acre =				1417	

Note

- (1) DOGM lump sum assumed
- (11) Contractor's actual costs, 1991 at E/053/012 escalated to 2000-S. Cat 225 Excavator, 20 ft wide road
- (00) DOGM general estimate - mulching
- (00) DOGM general estimate - manure \$16/ton delivered, \$14 ton/acre spreading
- (00) DOGM general estimate - broadcast seeding
- (00) DOGM general estimate - equipment mobilization
- (15) Means 2000. 01300-700-0180. project manager, minimum \$1,930/wk

Reclamation estimate is for disturbance associated with map dated 1/23/02.

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